

99 00261

# OPENING THE ROAD TO OPPORTUNITY

GOVERNMENTAL  
STUDIES LIBRARY

MAY - 4 1998

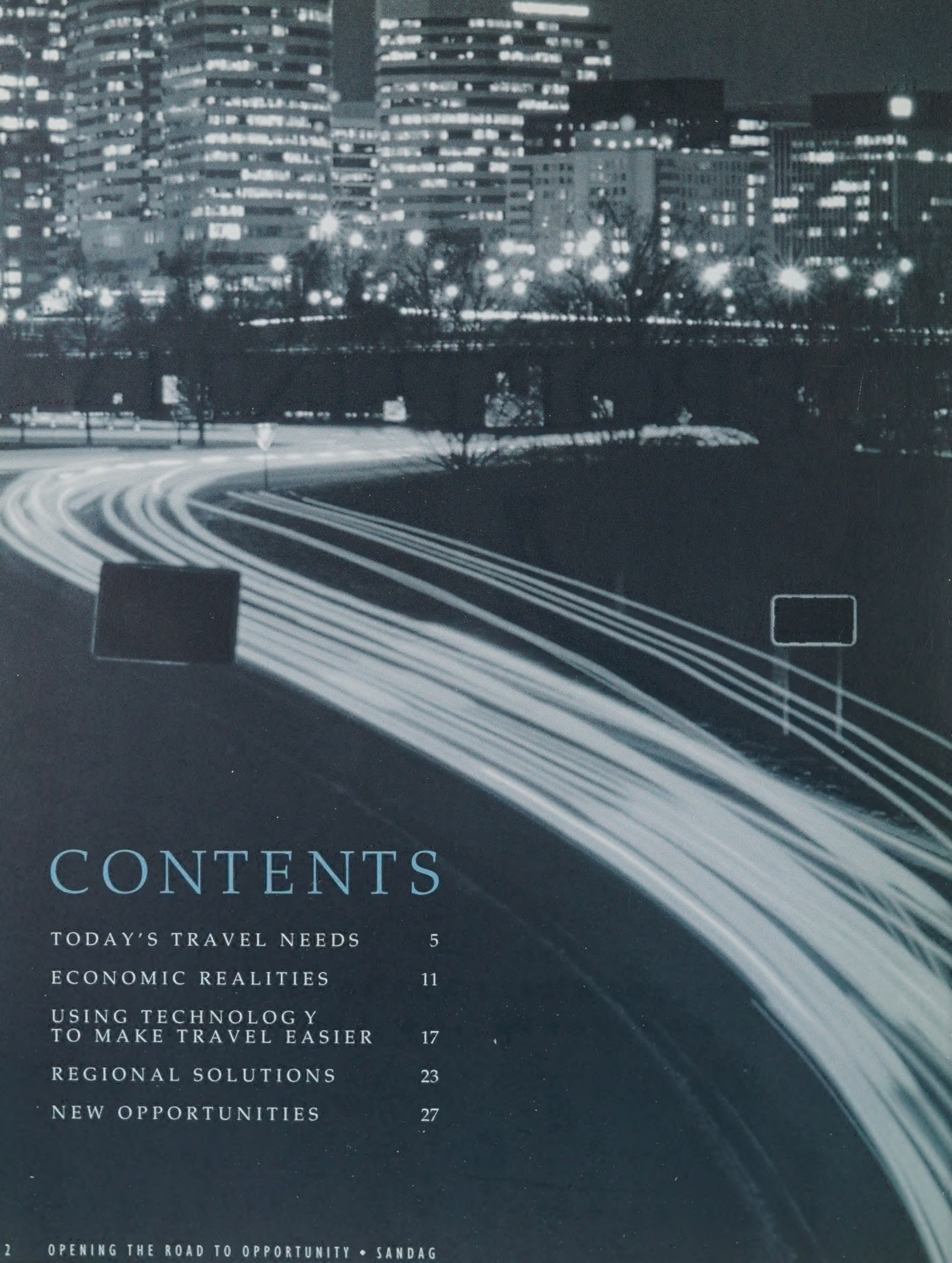
UNIVERSITY OF CALIFORNIA

FUTURE DIRECTIONS FOR OUR  
TRANSPORTATION SYSTEM



SAN DIEGO ASSOCIATION OF GOVERNMENTS





# CONTENTS

TODAY'S TRAVEL NEEDS	5
ECONOMIC REALITIES	11
USING TECHNOLOGY TO MAKE TRAVEL EASIER	17
REGIONAL SOLUTIONS	23
NEW OPPORTUNITIES	27



# OPENING THE ROAD TO OPPORTUNITY

Metropolitan areas are all about opportunity. San Diego and other metropolitan areas around the country grow and prosper because of the opportunities they offer to residents, business people and visitors.

As a community, the San Diego region now has the opportunity to identify future directions for our transportation system.

Let's look at the improvements we are making to the transportation system today and over the next few years, and why now is the best time to make decisions about our future travel needs.







# TODAY'S TRAVEL NEEDS

Today, we are a region of 2.8 million residents and are expected to grow to more than 3.8 million people by the year 2020. Our transportation system that supports these residents is designed to do two things: minimize traffic hassles, and offer everybody an equitable opportunity to make the trips they have to take every day.

These two objectives are worth knowing because we will be completing many of our currently agreed upon highway and transit routes in the next few years. Most, but not all, will be finished by 2005; and we'll be able to see if the system is doing what we intended.

Public decisions being made by SANDAG (the San Diego Association of Governments) will serve as the foundation for transportation in this region well into the next decade. SANDAG is the association of this region's 18 cities and county government. This association of local governments serves as the transportation planning agency, and makes most of the major transportation funding decisions for this region.

Currently, these decisions include how to spend \$231.5 million in state transportation improvement dollars, and more than \$700 million in federal dollars from the new Transportation Equity Act for the 21st Century, or TEA 21. Additionally, SANDAG will soon update its \$3 billion financial plan for the local ½% transportation sales tax program, known as TransNet.

The primary purpose of SANDAG's public decision-making process about highway and transit routes is to make travel easier between and among the major urban areas of the region - north, south, east, and central.

So now our focus should be on three related questions: How well does the system work? What will happen in the next few years? And where do we go from here?

## HOW WELL DOES THE SYSTEM WORK?

The system works well, especially considering the size of our binational metropolitan area and the demands we and our neighbors from Tijuana, Baja California, and other parts of southern California put on it.

Two of the best measures of how well a transportation system performs are travel times and personal experience.

Our transportation system is designed to minimize traffic hassles, and offer everybody an equitable opportunity to make their daily trips.





Despite our good showing statistically, many of us experience daily rush hour congestion.

The most recent nationally-prepared comparative measures reveal that our home to work travel times rank 5th fastest among 21 of the nation's metropolitan areas with populations in the 1.5 - 3.5 million range. (The four areas with faster travel times all have substantially smaller populations than San Diego.) This region's home to work travel times are much faster than those reported in the other large urban areas of Southern California.

More employers in this region, with the help of local governments, are following residents as they decentralize development in the urban areas of the region. This results in work sites located closer to new homes. And, for their part, some workers are finding homes closer to their jobs. These adaptive decisions help minimize the increase in home to work travel times even as the San Diego region continues to add people.

On the other hand, a growing number of people who work here can't find suitable, affordable homes here. Instead, they must find homes in neighboring counties, commute longer distances to work, and add to the congestion on our interregional freeways. The prime example is north Interstate 15.

So, despite our good showing statistically, many of us experience daily rush hour congestion, particularly on those freeways that connect the growing populations of north county and Riverside County with the growing employment areas in San Diego. That is why we are spending so much money today and over the next few years to rebuild the I-5/I-805 merge, widen I-15, and complete Highway 56 as the critical link connecting Interstates 5 and 15 in the mid-county.

Transportation needs are, of course, regionwide, so we are building dozens of other highway projects, north, south and east, plus a number of transit improvements, including a major extension of the Trolley to San Diego State University and La Mesa.

Public decisions being made by SANDAG will serve as the foundation for transportation in this region.

Overall, our home to work commute times have increased only slightly over the past ten years or so, despite the growth in population, workforce, and traffic congestion on our major highways.

Two things are happening. First, we're adapting to life in a large metropolitan area. Second, we're adding new travel capacity to our freeways and transit system.





## WHAT WILL HAPPEN IN THE NEXT FEW YEARS?

Transportation construction has been widespread in the region throughout the '90s, and it's going to continue for at least the next several years. If anything, the construction pace will pick up between now and 2005.

The best way to explain what's going on is to describe the improvements connecting the major urban areas in the region.

The link between east county communities and central San Diego is a good place to start. In a few years, this area will have the most major highway and transit connections. The principle used to improve travel times and reduce congestion between east county and central San Diego is to relieve the demands on Interstate 8 with a combination of additional freeways and the Trolley.

Route 94, the Martin Luther King freeway, was built along with I-8 in the late 1950s. But just since 1993, we have extended Route 52 and the East Line of the Trolley to Santee. Route 52 was then connected to Route 125 in Santee, and 125 was extended south to Grossmont College Drive. In a few more years, 125 will be completed to I-8 and south to Route 54. And then 52 will be completed through Santee to Route 67.

But that's not all. We will have the money to extend the Mission Valley Trolley line from the stadium through San Diego State University to La Mesa. This new extension of the Trolley should be running by 2004.

These east county to San Diego highway and transit connections are intended to balance travel among three major east-west freeways (8, 52 and 94), and between autos and transit. They also allow people to travel directly from east county to north and south county without clogging the roads to central San Diego. All of these links will be in place in the next few years.



A similar approach is being used to improve connections between south county and central San Diego, and between south and east county communities.

Route 125 will link Route 52 with I-8, and with Route 94 and the new Route 54 freeway. Then 125 will be extended south to the Otay Mesa border crossing as a toll road. Route 905, paralleling the international border, also will link the Otay Mesa border crossing with the rest of the region.

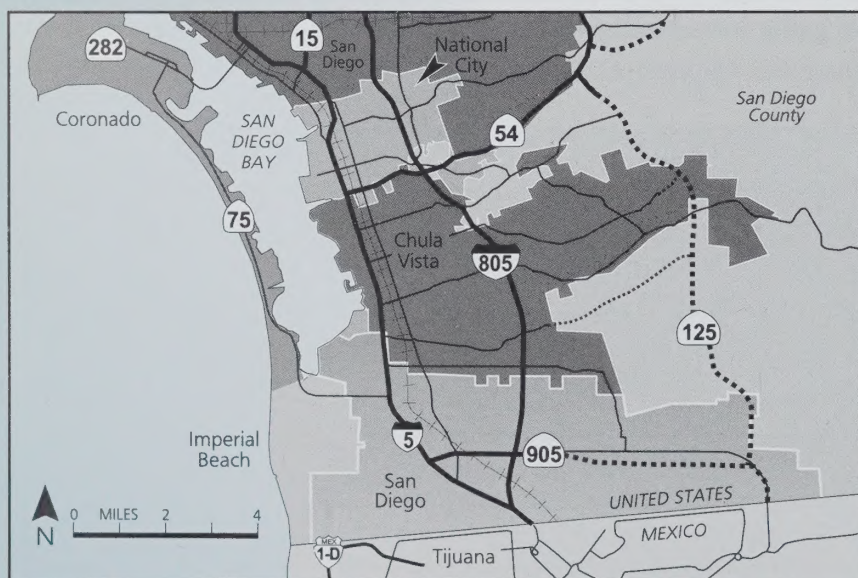
The transportation construction pace will pick up between now and 2005.

East County to San Diego highway and transit connections are intended to balance travel among three major east-west freeways (8, 52 and 94), and between autos and transit.



In South Bay, 905 will make truck traffic safer and faster, and eliminate roundabout travel by providing direct freeway connections.

Together, 125 and 905 should balance south to north, and south to east travel, eliminating many roundabout vehicle trips for both people and freight. This is important because the daily number of cars and trucks crossing the border (in both directions) between San Diego and Tijuana is about 110,000 vehicles and growing.



In the northern half of the region, we have I-5 and I-15 as the only high capacity routes linking central San Diego and north county and points beyond. Almost whatever we do to improve north - south vehicle travel in that area has to be done on those two freeways. This limitation is compounded by the large amount of interregional travel - about 1/3 of the total vehicle miles - on the northern segments of these two roads.

Improvements are being made today to 5 and 15. Besides the reconstruction of the 5/805 merge, a car pool/bus lane soon will be completed from the freeway merge north to Del Mar. The car pool lane then will be extended north to Encinitas. In addition, a northbound "auxiliary lane" will be extended from Mission Bay to Route 52, to match the existing southbound lane in the same area.

Auxiliary lanes are additional car lanes, built between highway interchanges, to help reduce rush hour traffic by making it faster and easier for drivers to enter and exit the freeway.

But the improvement along I-5 with the most potential and unused capacity is the Coaster, the commuter train connecting Oceanside and San Diego. The Coaster has the capacity to noticeably reduce I-5 congestion. Today, however, during the morning peak hour, only about half of the train's seats are occupied. Operational improvements, increased marketing, and better bus and shuttle connections at stations, will be needed to attract more riders to the Coaster.





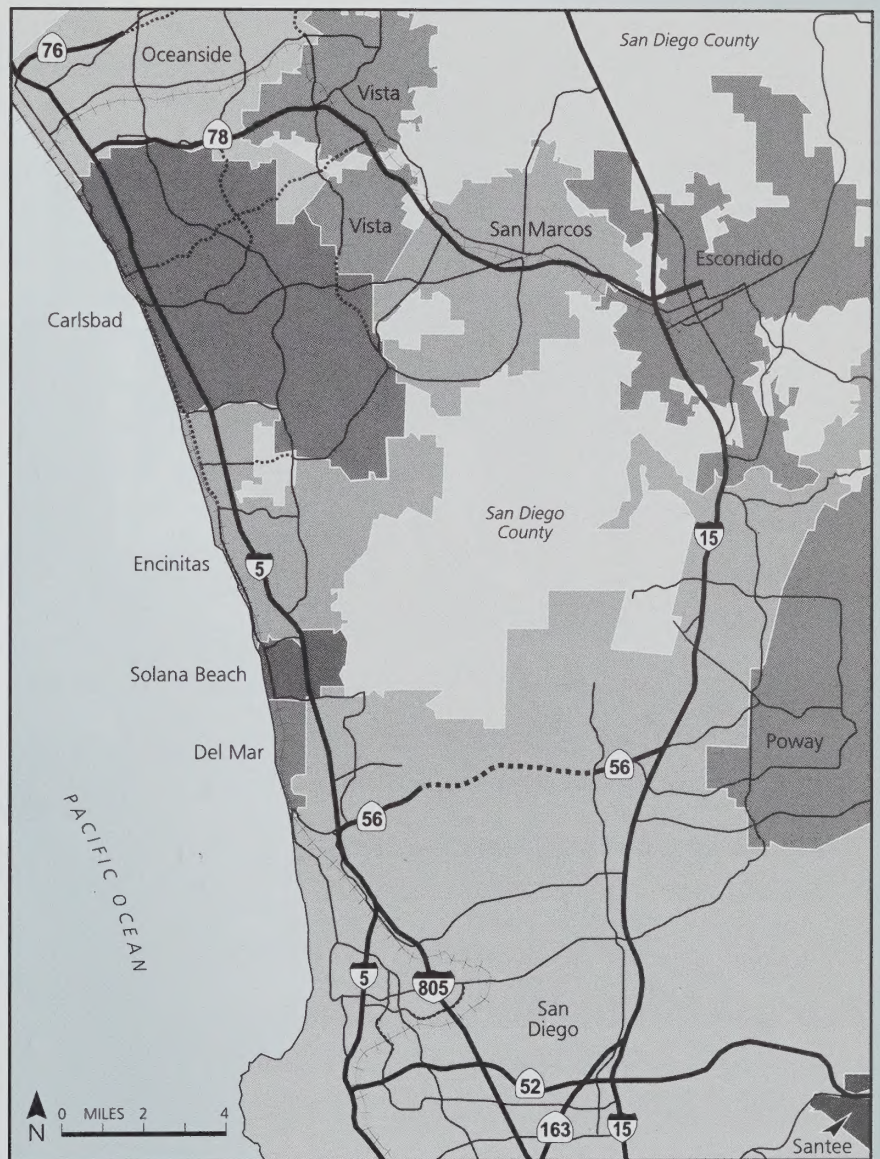
To help traffic flow along Interstate 15, SANDAG has funded both the west and east segments of Route 56, connecting I-5 with 15. The City of San Diego is addressing the environmental impacts for the five-mile middle section of Route 56. The highway should be opened to traffic by 2001.

SANDAG has paid for or programmed about \$196 million of the total estimated cost of \$224 million for the entire nine-mile length of Route 56. Completion of Route 56 will reduce morning congestion substantially on 15, south of Route 56, the Ted Williams Parkway. In addition, southbound auxiliary lanes will be built between Camino del Norte and 56 to allow for a faster exit from 15 to 56.

SANDAG also has earmarked funds so I-15 soon will get auxiliary lanes in the northbound direction between Route 56 and Escondido. These lanes, between interchanges, are being built for \$13.5 million.

Plus, SANDAG has earmarked \$8 million to widen the bridge over Lake Hodges, which will help eliminate that I-15 traffic bottleneck.

Within north county, we've concentrated on widening Route 78, rebuilding its interchanges to accommodate more traffic, adding lanes to the major arterial streets, and reconstructing Route 76 as an expressway in Oceanside. All this transportation activity is in response to the area's continued growth in both people and jobs.



In North County, I-5 and I-15 are the only high capacity routes linking central San Diego and north county and points beyond.







# ECONOMIC REALITIES

Maybe the best thing about the timing of all of this new transportation service is that it coincides with the resurgence and the restructuring of the region's economy.

Significant parts of our economy didn't exist ten years ago. For one thing, there are about 215,000 more people working in the region today than there were in 1988. Also, new kinds of jobs have been created. The wireless segment of the tele-communications industry, environmental technology, and recreational goods manufacturing are all new additions to our economy.

Much of our transportation system is new as well. Today's regional transportation improvements are designed primarily to serve people's travel needs, and move goods in our growing economy.

The cost of these transportation improvements is substantial. Over the past ten years, we've spent \$3.6 billion on the regional projects alone, not including the many local improvements made by the region's 18 cities and county government. Between now and 2005, we will spend at least another \$4.5 billion on just the regional transportation system, again, not counting the money spent on local streets and roads.

We have to consider these expenditures as investments in our economy. With a gross regional product exceeding \$89 billion each year, the region can profitably invest several hundred million dollars annually on its transportation infrastructure.

Route 905 is a good example of a highway that will serve primarily an economic function. When built in the next few years, 905 will be the primary commercial highway link between Mexico and California. Last year, there were more than 1.1 million truck crossings at 905's east terminus, the Otay Mesa port of entry. This was 76 percent more truck traffic than in 1991, only seven years earlier.

905 will make truck traffic safer and faster, and eliminate time consuming roundabout travel by providing a direct freeway connection with Route 125, I-805 and I-5.

Between now and 2005,  
we will spend at least  
another \$4.5 billion on  
just the regional  
transportation system.



Another good example is the reconstruction of the I-5/I-805 merge, along with the completion of Route 56 linking 5 and 15, and the Coaster. All three projects focus on improving employee and truck access to the rapidly expanding businesses in this area.



San Diego's Centre City's share of the region's total employment will increase during the next 15 years, and transportation accessibility is one of the most important reasons for this success.

More than half of the jobs in the region's five fastest growing industries, including biomedical products, communications, and software and computer services, are located around the 5/805 merge; plus, more than one fourth of our financial services jobs.

Route 78 is yet another example of how transportation serves our economy. There are about 170,000 jobs located along recently widened Route 78, including almost 30 percent of the region's expanding computer and electronics manufacturers as well as large percentages of the local horticulture industry and recreational goods manufacturing. These growth industries help explain why building a rail transit line between Oceanside and Escondido, and rebuilding the Route 78/I-5 interchange are such high priorities.

Finally, unlike downtowns in many other large metropolitan areas, San Diego's Centre City is continuing to experience a revitalization with increased employment, recreational and cultural opportunities. In fact, SANDAG forecasts an increase in Centre City's share of the region's total employment during the next 15 years. This is unusual in a large, fast growing urban area. Recently, job growth in most metropolitan downtowns has declined as a percent of total regional employment.

Not so in San Diego - and transportation accessibility is one of the most important reasons for this success. Although it might seem odd to many area residents, downtown San Diego is the most accessible, least congested employment center in the region.

Our expansive, multi-directional, road, rail, trolley, and bus network has made this possible. The extension of the Trolley system and the start-up of the Coaster have accelerated the growth of Centre City San Diego, along with all of the new highways, such as 52, 54 and 56, that take auto traffic bound for other parts of the region off of the freeways that go downtown.





## WHERE DO WE GO FROM HERE?

Interested residents and representatives of civic and community groups, along with government officials all should help identify our future directions for travel and transportation. We should begin discussing and making these decisions now as SANDAG updates this region's long-range vision for the transportation system - the Regional Transportation Plan - by the end of 1999.

This won't be easy, and shouldn't be left entirely to government. As with all basic public services, transportation is everybody's business. Most of us travel every day and all of us depend upon transported goods and services. Transportation helps hold our society together.

What needs to be decided? As travelers, we need to recognize that soon after 2000, the region will be completing the major freeways and transit routes that have been in the Regional Transportation Plan for the past 20 years. Geographically, at least, we will have relatively less flexibility to build new freeways and transit routes as the primary response to the demands for more travel capacity.

So, the challenge is to identify the changes we should make in the transportation system to accommodate our changing travel behavior, and how much we should invest in each of these changes.

When we think of travel in this region, most of us simply focus on getting in our cars and driving to our destinations. Small wonder - every weekday in San Diego, we travel more than 64 million miles, most of them by automobile.

Our *driving habits* probably won't change much in the near future. No other means of travel offers the same perceived level of convenience and personal security as the automobile. Besides, our ever-expanding street and highway network invites us to indulge our driving habit.

Nevertheless, many of us change our *travel habits* all the time. These changes have a big effect on who drives, where they drive and when. During our lives, all of us change our travel behavior, usually several times. For example, school days, the working years, and retirement constitute for many people three distinct periods of personal travel behavior.

We and our governmental transportation agencies need to understand more about our current travel habits, and how such things as our age, sex, job, and income determine when, where and how we make trips. Then add to this mix such factors as land use, zoning, health issues, and work locations to name but a few. The challenge becomes how best to more accurately forecast significant changes in regional travel.



Geographically, at least, we will have relatively less flexibility to build new freeways and transit routes as the primary response to the demands for more travel capacity.

Our *driving habits* probably won't change much in the near future. Nevertheless, many of us change our *travel habits* all the time.



More people are shopping  
at home, using the  
telephone and the Internet  
rather than their cars.

Here are a couple of recent and related examples to illustrate this point.

Large numbers of married women went back to work in the 1980s, here and all over the country. These new workers increased home to work travel and peak hour congestion in most of the nation's metropolitan areas, including San Diego. And although many men and women lost their jobs during the recession of the early 90s, the pattern of both spouses working had been established as an economic necessity. Today, with a growing and diversifying regional economy, they're both employed again. We now have what probably will be a long-term increase in home to work travel miles in this region.



This increase in time devoted to working, however, is changing some of our other travel habits. Most notably, how we shop. Between 1986 and 1995, home-based shopping trips declined while taxable retail sales edged upward.

Why the decline in shopping trips? The recession gets most of the credit but there are other reasons as well. For example, people began linking shopping with other trips, and making fewer, longer home-based shopping trips. And more people are shopping at home, using the telephone and the Internet rather than their cars. This changes not only our travel habits, but the retailing business as well.

It also emphasizes the importance people place on convenience and personal security. In this case, the home is better than the car to go shopping. Some people may be in love with their cars; however, many other drivers simply place a high value on their car's convenience and security. When the automobile serves those purposes best, people get behind the wheel of their car. If something else works better, they'll use that instead.

These examples - and there are numerous others - illustrate the *changes in travel habits* we should try to identify now so we won't be surprised in the future. Transportation is too expensive for surprises. Most households spend more on transportation than they spend for food.

How do we identify emerging changes in travel habits? Involving citizens is the primary way.



Rush hour traffic congestion should be the first target. Although relatively small in number (about 25 percent of total daily vehicle miles), home to work trips are the most important trips we make on our transportation system. Transportation is basically a tool of the economy, one of the things that binds our community and our nation together.

Work related travel is important for another reason, too. Many of us base our perceptions about the efficiency of the transportation system and the quality of our community generally on the ease with which we can get to and from work. While increasing rush hour traffic congestion is actually an indicator of economic success, pessimistic perceptions about traffic ultimately can negatively affect the region's economy.

The best way to deal with congestion is proactively, involving as many citizens as possible as participants in solving the problem.

As mentioned earlier, SANDAG is responding to the vocal citizen complaints about congestion on I-5 and I-15. Among other things, lanes are being added to both freeways, and Route 56 is being completed. When completed in the next few years, these improvements will help a lot. But we need to plan farther ahead.

The region's transportation agencies should organize a public involvement project based on a simple premise: "Here's what we're doing about congestion now. What should we be doing next?"



The project should be specific to each major travel route in the region. This targeted approach should increase local public interest and participation in the project area, and maximize the value of the participants' suggestions.

A proactive approach to a controversial topic entails risks. However, the alternative to taking the initiative is simply reacting to people's complaints about the problem. We should take advantage of this opportunity created by greater public concern about traffic congestion to involve those people who contribute to the congestion, to participate in finding ways to reduce it.

Identifying the changes in our current and future travel habits should grow logically from our effort to involve residents in reducing congestion. We need to better understand the opportunities that will allow us to conveniently change our travel behavior and increase the travel capacity of the transportation system.

The following section describes some of our options for improving travel in the region.

Transportation improvements are expensive, but similar to education, we have to view them as investments in our people and economy.







# USING TECHNOLOGY TO MAKE TRAVEL EASIER

Electronics, telecommunications and other related technologies are fundamental facts of modern life in America. Technology is a tool used for most economic transactions, including transportation. Computer-based communications systems are beginning to be used to reduce traffic congestion, and speed auto and transit travel.

Known in the transportation industry as “advanced” or “intelligent” transportation systems, these electronic and computer-based technologies already perform some basic functions, such as coordinating traffic signals and changing freeway message signs. But they also are being extended to provide personalized trip information, such as road conditions and best routes for individual travelers.

One of the looked-for breakthroughs in congestion management and improved safety is collision avoidance technology in each automobile and built into roadways. This technology already is available. Caltrans demonstrated it successfully on I-15 in San Diego during the summer of 1997.

It has great potential for congestion relief because it automates speeds and vehicle spacing to safely optimize traffic flow on busy highways. In essence, this type of applied technology could more than triple the capacity of the existing highway network.

However, the federal and state departments of transportation, the National Transportation Safety Board, the auto industry, and most importantly, the public must accept

this technology before it becomes a reality. Obviously, this will take a while. However, Americans usually apply technology, when it's available, to solving their problems. So, automated traffic flow in a few designated travel lanes on some highways during rush hour could be in our relatively near future.

Train travel in and between California's metropolitan areas might speed up, too. The California High Speed Rail Authority is preparing a proposal for the 2000 election that would give voters the opportunity to approve a financing plan for a fast train network connecting the state's major cities.

San Diego, of course, would be on the system, and we need to decide how, if it is approved, we are going to take advantage of this new travel capacity. Where, for example, should a high speed rail line be located in this region, and where do we want the stations? These will be important issues to decide as we update the Regional Transportation Plan.

## INNOVATIVE NEW WAYS TO MANAGE TRAFFIC FLOW

During the morning and afternoon rush hours, most freeways have too few lanes going in one direction, and unused capacity available in the other. To reduce congestion, some freeways could be reconfigured each day so that we have enough lanes to meet the predominant directional travel demands.

Technology is a tool used for most economic transactions, including transportation.



The 20-mile stretch of I-15 between Miramar Air Station and Escondido is the most likely first candidate for this kind of traffic management because the morning and afternoon weekday peaks are mostly one-directional.



Some freeways could be reconfigured each day so that we have enough lanes to meet the predominant directional travel demands.

Entrances and exits to the new 'managed' lanes would be provided at several locations along the route. The lanes would be managed using electronic and communications technologies to maintain optimum traffic flow. The net result should be reduced peak hour congestion and the reward of reduced travel times for people who choose to car pool and ride buses.

This kind of traffic management isn't cheap. The estimated cost to construct this "freeway within a freeway" is \$20 million per mile, or about \$400 million for this segment of I-15. Therefore, we have to be sure that reconstruction will reduce congestion for a long time, and that we aren't shortchanging the growth of traffic going in the other direction.

But new freeways, of course, are even more expensive (assuming you can find a place to build one), usually running at least \$25 million, or more often, \$65 million per mile or more. So this application of technology and new construction is a likely near future addition to some of our existing freeways.

## PRICING TRAVEL TO REDUCE TRAVEL TIMES AND TRAFFIC CONGESTION

The notion of paying to travel has been around a long time. Several of the American colonies' first "public" roads were tollways. Entrepreneurs improved these early roads, and then were repaid by charging fees to travelers who, after paying the toll, "turned the pike" for access to the road.

While never popular, transportation tolls survive today in many states, including California, as fiscal and political necessities. Toll financing is often the fastest way of paying



for the construction of a road or bridge that is needed by a comparatively small but important and well-defined segment of the population or economy. The San Diego - Coronado Bridge is a good local example of a highway that, when built, was considered a suitable candidate for toll financing.

In recent years, as traffic congestion in the nation's metropolitan areas has increased, a number of economists have been encouraging government to begin treating travel the same way other public services treat the users of their systems. That is, governments should begin charging travelers who want to use the transportation system during rush hours. This is similar to water agencies and phone and power companies charging premium prices to their customers during periods of peak demand.

This idea has its detractors, especially in a state where the busiest roads are called "freeways." So, why do it? The principle is that this tax on rush hour travel would spread the peak period, as people change their schedules to avoid the toll, thus reducing congestion and helping the economy by cutting time wasted in traffic.

The primary arguments against charging for rush hour travel are that, through our taxes, we already have paid for our roads, and what is the government going to do with the money? The economists' response is that we've already paid for our power and phone lines, too, but the power and phone companies have higher peak period charges anyway.



The extra money can and should be used to pay for more travel capacity in the corridor where the tolls are paid. But the agency charging the toll has to balance the need to accumulate revenue with the public's willingness to pay. Unreasonably high charges will limit revenues just as much as low ones.

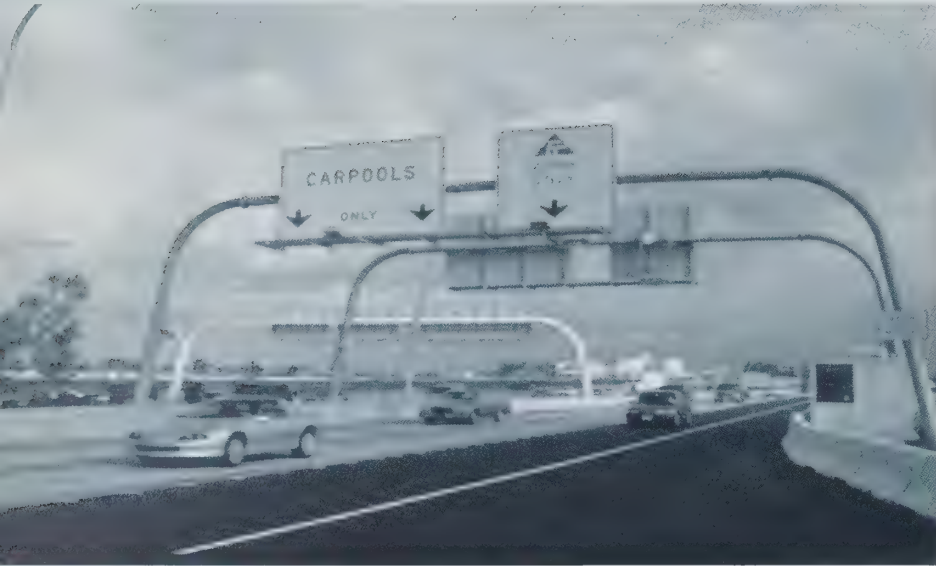
The region is testing the climate for tolls on three different routes: the San Diego - Coronado Bay Bridge, Interstate 15, and soon, the State Route 125 South tollway.

The San Diego - Coronado Bridge was conceived and built by the state in the 1960s as a toll bridge. Toll revenues were used to repay the cost of the bridge construction bonds. The bonds were paid off in 1986. SANDAG is now considering eliminating the bridge toll.

The region is testing the climate for tolls on three different routes: the San Diego - Coronado Bay Bridge, Interstate 15, and soon, the State Route 125 South tollway.



## USING TECHNOLOGY TO MAKE TRAVEL EASIER



In a “back to the future” move, a partnership of private firms has been awarded a franchise by the state to extend State Route 125 as a toll road from a point south of SR54 to the border crossing at Otay Mesa. The road should be built soon after 2001. Once open, drivers’ tolls will be used to repay the private investors’ costs. When the repayment is complete (after 35 years, including a return on the private investments), ownership of the road will be transferred to the state, and the toll can be eliminated.

To help move traffic on busy I-15 and test the public’s acceptance of paying to avoid rush hour congestion, SANDAG, in cooperation with the U.S. Department of Transportation, Caltrans and the California Highway Patrol, has opened the car pool lanes to drive-alone commuters. The drive-alone commuters pay a toll to avoid congestion in the main lanes. The project, known as FasTrak, has several objectives, all of which are potentially important to our decisions about the future direction for transportation in this region.

Toll financing is often the fastest way of paying for the construction of a road or bridge that is needed by a comparatively small but important and well-defined segment of the population or economy.



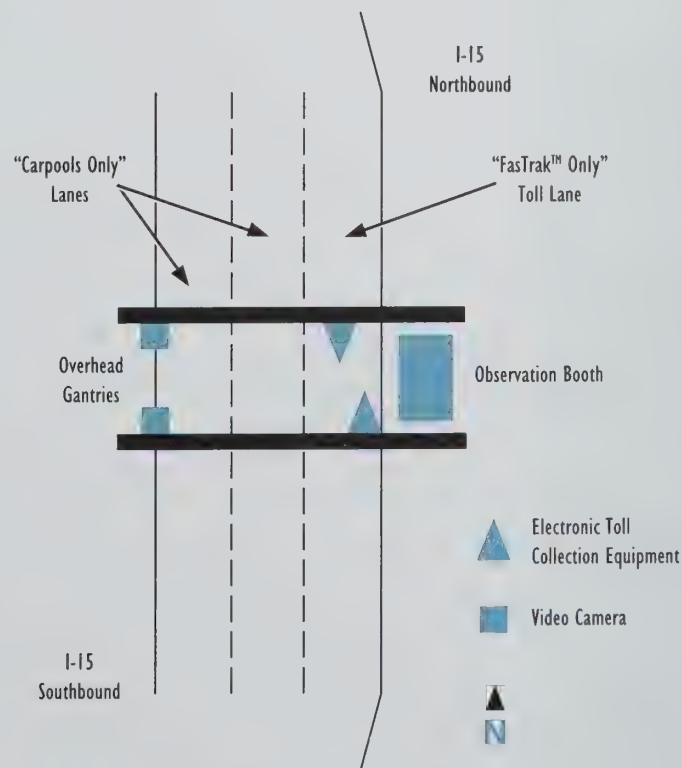


First will commuters pay a fee to avoid traffic congestion? Will enough of them be willing to pay to noticeably reduce congestion for the other commuters in the main freeway lanes? How should the fee revenue be spent? Can it be spent effectively to help reduce congestion in the travel corridor? How do local elected officials react to the responsibility of administering transportation tolls? Does the public perceive any important societal inequity in the concept? Do transportation tolls have any other predictable or unforeseen consequences in the community?

The I-15 FasTrak project is scheduled to end in 1999. So, as part of the update of SANDAG's Regional Transportation Plan, we should decide about the future viability of this idea, and its potential contribution to future travel in this region.



Collision avoidance technology was tested on I-15 during the summer of 1997. This type of technology has the potential to handle many more vehicles on our existing highways.









# REGIONAL SOLUTIONS

## HEADING OFF LOCAL AND REGIONAL CONFLICTS IN REDUCING TRAFFIC CONGESTION

We all want our freeways and our local streets congestion free. Unfortunately, reducing congestion on one road can increase traffic slowdowns on the other.

Today, we're busy designing and installing ramp meters to regulate the flow of local traffic onto freeways during periods of congestion; and we're just as busy designing and building local streets to move traffic onto the freeways as quickly as possible. The result is more backup on local streets, while some of the freeways are congested anyway.

As with any regulatory device, the regulated driver has to believe ramp meters are doing some good. To improve the situation, we're coordinating our local traffic signals with nearby ramp meters; and, as we can afford it, rebuilding some freeway interchanges and some of the connecting major streets to handle the increased traffic.

But as travelers, we can help the situation, too. San Diego's rush "hour" is actually relatively short. Changing when we go to and from work by 15 to 30 minutes can reduce congestion, reduce the local - regional traffic problem, and thus reduce the complaints about ramp meters. Also, notice that car-poolers, just two people in the vehicle, and bus riders are given priority at the ramp signals.

Changing when we go  
to and from work by  
15 to 30 minutes  
can reduce congestion.





## USING OUR HOMES AND BUSINESSES TO CHANGE OUR TRAVEL BEHAVIOR

The regional standard for the average home to work trip by auto in the urban area is less than 20 minutes.

Where we live, work and shop, and how we design these places also affect our travel habits. People are more aware of this fact than they were a few years ago. And increased awareness has led to individual and governmental actions.

Here are three of the most important examples of this point.

Over the past 20 years, our region's population has increased by more than a million people. During that same period, employment has doubled, to more than one million jobs. In dealing with this growth, we have almost doubled the size of the developed area (from 185,000 to 330,000 acres). As a result, the average work commute, whether driving, riding public transit, or carpooling, has increased from 14 to 21 minutes, and has become 3 miles longer.

Fortunately, our work trip figures didn't increase at the same rate as growth in employment and developed area.

There are three basic reasons for this relatively smaller increase in the length of home to work trips. First, to meet the growing demand, we've built more highways and expanded the transit system. Just as important, however, many people are adjusting to the growth by shifting, to a new home, a new job, or both, or by moving their travel time to earlier or later in the day. (More than 35 percent of our employed residents who must travel to work make their trips outside the morning and afternoon peaks.) And finally, employers are locating more jobs closer to new homes.

The region has set travel time standards to help reinforce the common sense view that we should keep our work and other daily trips as short as practical. For example, the regional standard for the average home to work trip by auto in the urban area is less than 20 minutes.

This standard for work trips by car is based on trying to maintain today's average travel times as we grow. Our decisions about future changes to the transportation system and local government's decisions about where to build new homes and businesses should be based on attempting to meet this standard.





In addition, builders and local governments are changing their requirements for new development to reduce the length and number of automobile trips for residents and employees. They also are making it easier for people to walk to some destinations, or use transit or a bicycle. Market demands are 'driving' these changes.

The market for easier travel is growing because working people don't have time for a lot of long daily car trips; and they also want their children to be able to get around in their neighborhoods quickly and safely. Factors like these produce the growing demand that new development respond to our changing travel behavior.

Finally, today, more than 70 percent of the region's homes are within one-quarter mile of a transit stop, and more than 85 percent are located within one-half mile. Also, many communities such as La Mesa's downtown, San Diego's Hazard Center in Mission Valley, Chula Vista's planned Otay Ranch, and the area near Carlsbad's Poinsettia Lane have identified sites for new homes and businesses near the region's Trolley and Coaster stops. Approval of these sites represents a change in local government's behavior resulting from some citizens' desires to change their travel behavior.



We're going to see more of this in the near future because there is a growing market for homes and businesses near transit stops. During the next several years, more communities will approve new "transit-oriented developments."

How far will this trend go? We don't yet know. But it's a good example of people who previously drove to work taking advantage of the opportunity offered by the expanding transit system. Certainly, our transit system has the capacity to handle more customers.

The market for commute alternatives such as flex hours and express bus service is growing because working people don't have time for a lot of long daily car trips.







# NEW OPPORTUNITIES

The San Diego region has done at least as well as any other metropolitan area of California in providing for its travel needs. There are two primary reasons for this success: our citizens support transportation politically and financially; and this region is well organized governmentally to decide on projects, and then implement and operate them.

These two factors give transportation a consistently high public profile, and allow us to take advantage of new opportunities and test new ideas.

New technology, traffic management, and peak period travel pricing are important options, but not the only opportunities available to us. We also need to get a better understanding of the factors that affect our travel behavior. Then we can more accurately forecast our future travel needs and the changes we should make in the region's development pattern, and in the transportation system to handle those needs.

Development, particularly new single family home construction, has spread out much more than we assumed 20 years ago. That's why SANDAG's transportation policy is not single-focused. No one or two solutions can keep pace with our population growth, appetite to drive, and our expanding regional economy.

SANDAG has taken decisive funding action. Every available transportation funding dollar is being put into the system. Since 1988, we have spent \$1.8 billion to improve our highways, \$1 billion on transit

systems, and nearly \$800 million on local roads, bicycle facilities, and on new transportation technology. Our local Caltrans office is doing the mandated environmental and design work, and providing highway construction management, while our transit agencies are expanding bus and rail services.

For the next six years, SANDAG has allocated \$2.3 billion more for highways and \$1.3 billion for transit improvements. Our priorities are widening the I-5/I-805 merge, adding auxiliary lanes to I-15, linking the trolley in Mission Valley to San Diego State University and east county communities, completing Routes 56 and 125, and constructing Route 905 paralleling the international border. Plus, we will start commuter rail service in the North County to connect the cities of Oceanside, Vista, San Marcos, and Escondido.

Transportation is expensive but we have to view these expenditures as investments in our people and our economy. As the year 2020 Regional Transportation Plan is updated this year, SANDAG will provide the public forum for this evaluation, and for decisions about travel and transportation during the first two decades of the 21<sup>st</sup> century. Coordinated land use and transportation is one of the keys to creating a sustainable and prosperous San Diego region for all of us. Another important key is active citizen involvement in helping to put the new Regional Transportation Plan together. It's an opportunity we can't afford to pass up.

It's an opportunity  
we can't afford  
to pass up.

U.C. BERKELEY LIBRARIES



C124919573





## BOARD OF DIRECTORS

The 18 cities and county government are SANDAG serving as the forum for regional decision-making. The Association builds consensus, makes strategic plans, obtains and allocates resources, and provides information on a broad range of topics pertinent to the region's quality of life.

**CHAIRMAN:** Hon. Art Madrid

**VICE CHAIR:** Hon. Ramona Finnila

**SECRETARY-EXECUTIVE DIRECTOR:** Kenneth E. Sulzer

**CITY OF CARLSBAD**

Hon. Ramona Finnila, Councilmember  
(A) Hon. Bud Lewis, Mayor  
(A) Hon. Matt Hall, Mayor Pro Tem

**CITY OF CHULA VISTA**

Hon. Shirley Horton, Mayor  
(A) Hon. Mary Salas, Mayor Pro Tem

**CITY OF CORONADO**

Hon. Thomas Smisek, Mayor  
(A) Hon. Chuck Marks, Councilmember

**CITY OF DEL MAR**

Hon. Richard Earnest, Mayor  
(A) Hon. Crystal Crawford, Councilmember

**CITY OF EL CAJON**

Hon. Richard Ramos, Councilmember  
(A) Hon. Mark Lewis, Mayor

**CITY OF ENCINITAS**

Hon. Dennis Holz, Deputy Mayor  
(A) Hon. Sheila Cameron, Mayor

**CITY OF ESCONDIDO**

Hon. Keith Beier, Mayor Pro Tem  
(A) Hon. June Rady, Councilmember

**CITY OF IMPERIAL BEACH**

Hon. Diane Rose, Mayor  
(A) Hon. Mayda Winter, Mayor Pro Tem  
(A) Hon. Patricia McCoy, Councilmember

**CITY OF LA MESA**

Hon. Art Madrid, Mayor  
(A) Hon. Barry Jantz, Councilmember  
(A) Hon. Jay La Suer, Councilmember

**CITY OF LEMON GROVE**

Hon. Mary Sessom, Mayor  
(A) Hon. Jill Greer, Councilmember

**CITY OF NATIONAL CITY**

Hon. Ron Morrison, Vice Mayor  
(A) Hon. George H. Waters, Mayor

**CITY OF OCEANSIDE**

Hon. Terry Johnson, Councilmember  
(A) Hon. Carol McCauley, Councilmember

**CITY OF POWAY**

Hon. Don Higginson, Councilmember  
(A) Hon. Mickey Cafagna, Mayor  
(A) Hon. Robert Emery, Deputy Mayor

**CITY OF SAN DIEGO**

Hon. Barbara Warden, Councilmember  
(A) Hon. Juan Vargas, Councilmember  
(A) Hon. Byron Wear, Deputy Mayor

**CITY OF SAN MARCOS**

Hon. Vince Andrade, Councilmember  
(A) Hon. Hal Martin, Councilmember

**CITY OF SANTEE**

Hon. Jack Dale, Mayor  
(A) Hon. Hal Ryan, Councilmember  
(A) Hon. Jim Bartell, Vice Mayor

**CITY OF SOLANA BEACH**

Hon. Marion Dodson, Mayor  
(A) Hon. Joe Kellejian, Deputy Mayor  
(A) Hon. Marcia Smercan, Councilmember

**CITY OF VISTA**

Hon. Gloria E. McClellan, Mayor  
(A) Hon. Judy Ritter, Councilmember

**COUNTY OF SAN DIEGO**

Hon. Pam Slater, Chairwoman  
(A) Hon. Greg Cox, Supervisor

**STATE DEPT. OF TRANSPORTATION**

(Advisory Member)  
José Medina, Director  
(A) Gary Gallegos, District 11 Director

**U.S. DEPARTMENT OF DEFENSE**

(Liaison Member)  
CAPT Tom M. Boothe, USN, CEC  
Commander, Southwest Division  
Naval Facilities Engineering Command  
(A) CAPT Robert Westberg

**SAN DIEGO UNIFIED PORT DISTRICT**

(Advisory Member)  
Jess Van Deventer, Commissioner

**SAN DIEGO COUNTY WATER AUTHORITY**

(Advisory Member)  
Frank Chenelle  
(A) John Fowler

**TIJUANA/BAJA CALIFORNIA/MEXICO**

(Advisory Member)  
Hon. Luis Herrera-Lasso M.  
Consul General of Mexico

*(As of January 13, 1999)*